Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 2 (Cancelled)

Claim 3 (Previously Presented) A computer-implemented method for generating scenarios for subsequent use comprising the following steps:

obtaining at least two Weighting *EFDs*;

accessing data contained in a Foundational Table;

using an Iterative Proportional Fitting Procedure that resolve non-convergence conflicts between two said Weighting EFDs to determine bin weights and said accessed data contained in said Foundational Table;

using said bin weights to determine a first at least one weight for a first at least one row of said Foundational Table;

using said bin weights to determine a second at least one weight for a second at least one row of said Foundational Table; and

providing said first at least one weight, said second at least one weight, said first at least one row of said Foundational Table, said second at least one row of said Foundational Table as at least two scenarios in a form suitable for an entity that subsequently uses said at least two scenarios.

Claim 4 (Currently Amended) A computer-implemented method to share risk between at least two parties comprising the following steps:

accepting an *ac-Distribution*, comprising at least two bins, each said at least two bins having associated probabilities ~~grater~~ **greater** than zero, from each of said at least two parties;

accepting a contract quantity from each of said at least two parties;

using at least two bins from said at least two parties, a logarithmic numeric transformation, and said accepted contract quantities to determine a *PayOffMatrix* comprising at least two rows and at least ~~**two columns**~~ **one column**;

determining which of said at least two bins subsequently manifests; and

arranging a transfer of consideration based upon said *PayOffMatrix* amongst said at least two parties.

Claim 5. (NEW) A computer implemented method to perform Iterative Proportional Fitting comprising:

initializing at least two *tarProp* vectors with target proportions;

updating at least two *curProp* vectors;

updating a first *hpWeight* vector;

updating a second *hpWeight* vector;

utilizing at least one of the following:

smart Dimension Selecting;

partial Re-weighting;

LPFHC strategic storage;

DMB strategic storage; and

making available for subsequent use at least one weighting element.

Claim 6. (NEW) The method of Claim 5 wherein said one weighting element is an element of said first *hpWeight* vector.

Claim 7. (NEW) The method of Claim 5 wherein said one weighting element is the mathematical product of an element of said first *hpWeight* vector and of an element of a said second *hpWeight* vector.

Claim 8. (NEW) The method of Claim 5 wherein said one weighting element is a weight for a row contained in a Foundational Table.

Claim 9. (NEW) The method of Claim 7 wherein said mathematical product of an element of said first *hpWeight* vector and of an element of a said second *hpWeight* vector is a weight for a row contained in a Foundational Table.

Claim 10. (NEW) A computer implemented method to identify at least one explanatory variate that is most explanatory of a response variate comprising:

determining a *benchmark-Distribution* for said response variate;

determining a *refined-Distribution* for each bin of a first possible explanatory variate, said first possible explanatory variate having values that classify into at least two possible bins;

calculating a value of knowing said first possible explanatory variate via aggregating results of comparing said *refined-Distribution* for each bin of said first possible explanatory variate against said *benchmark-Distribution* for said response variate;

determining a *refined-Distribution* for each bin of a second possible explanatory variate, said second possible explanatory variate having values that classify into at least two possible bins;

calculating a value of knowing said second possible explanatory variate via aggregating results of comparing said *refined-Distribution* for each bin of said second possible explanatory variate against said *benchmark-Distribution* for said response variate;

determining whether said first possible explanatory variate or said second possible explanatory variate has the highest value of knowing; and

making available for subsequent use identified explanatory variate with the highest value of knowing.

Claim 11. (NEW) A computer implemented method to perform Probabilistic-Nearest-Neighbor Classification comprising:

obtaining an Open Point;

identifying a set of County Points near said Open Point;

identifying a subset of Town Points in said set of County Points;

determining the number of interleaving County Points for each said Town Point;

eliminating from said set of Town Points overshadowed points; and

making available for subsequent use at least one Town Point.

Claim 12. (NEW) The method of Claim 7 further comprising:

calculating a probability that a first Town Point is the nearest neighbor to said Open Point;

calculating a probability that a second Town Point is the nearest neighbor to said Open Point; and

making available for subsequent use at least one of said calculated probabilities.